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| APPLICATION NO | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO | CONFIRMATION NO |
|---|---|---|---|---|
| 08/713,905 | 09/13/1996 | FRANK RICHTER | MO-4532 LEA | 2755 |

7590 05/02/2002

PATENT DEPARTMENT
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| EXAMINER | |
|---|---|
| SERGENT, RABON A | |

| ART UNIT | PAPER NUMBER |
|---|---|
| 1711 | 20 |

DATE MAILED: 05/02/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

T-D - 20

# Office Action Summary

| Application No. | Applicant(s) |
|---|---|
| 08/713,905 | Richter et al. |
| **Examiner** | **Art Unit** |
| Rabon Sergent | 1711 |

-- ***The MAILING DATE of this communication appears on the cover sheet with the correspondence address*** --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *three* MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) [X] Responsive to communication(s) filed on *Oct 30, 2001*.

2a) [ ] This action is **FINAL**. 2b) [X] This action is non-final.

3) [ ] Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

**Disposition of Claims**

4) [X] Claim(s) *1-6* is/are pending in the application.

4a) Of the above, claim(s) _____ is/are withdrawn from consideration.

5) [ ] Claim(s) _____ is/are allowed.

6) [X] Claim(s) *1-6* is/are rejected.

7) [ ] Claim(s) _____ is/are objected to.

8) [ ] Claims _____ are subject to restriction and/or election requirement.

**Application Papers**

9) [ ] The specification is objected to by the Examiner.

10) [ ] The drawing(s) filed on _____ is/are objected to by the Examiner.

11) [ ] The proposed drawing correction filed on _____ is: a) [ ] approved b) [ ] disapproved.

12) [ ] The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. § 119**

13) [X] Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

a) [X] All b) [ ] Some* c) [ ] None of:

1. [X] Certified copies of the priority documents have been received.
2. [ ] Certified copies of the priority documents have been received in Application No. _____.
3. [ ] Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) [ ] Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

**Attachment(s)**

15) [ ] Notice of References Cited (PTO-892)

16) [ ] Notice of Draftsperson's Patent Drawing Review (PTO-948)

17) [ ] Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____

18) [ ] Interview Summary (PTO-413) Paper No(s).

19) [ ] Notice of Informal Patent Application (PTO-152)

20) [ ] Other.

1. The request filed on October 30, 2001 for a Continued Prosecution Application (CPA) under 37 CFR 1.53(d) based on parent Application No. 08/713,905 is acceptable and a CPA has been established. An action on the CPA follows.

2. Claim 2 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Formula (I) in conjunction with the definitions of the variables renders the claim indefinite, because all of the formula members and the values of "n" will not generate a polyamine under various permutations. Also, the direct bond between "X" and "O" is only viable when limited to $R^1$. See footnote 2 within page 2 of the Board of Patent Appeals decision of August 30, 2001.

3. Claim 2 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Support has not been found and adequate description has not been provided for $R^2$ and $R^3$ being direct bonds.

4. Claims 1-6 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The examiner has not found support within the specification for the limitations pertaining to the hydrolyzable chlorine content. Despite applicants' argument, the examples provide support for chlorine contents of 0.0024 to 0.0048 percent, which are significantly below the claimed amounts.

5. Claims 1-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Applicants have failed to specify the type of percent value (weight percent or mole percent) and the basis for the percent value of the hydrolyzable chlorine content.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lehmann et al (122) in view of Joulak et al ('683) or Biskup et al ('818) or Bischof et al ('935).

Lehmann et al disclose the production of ether isocyanates by reacting phosgene with ether amines. See column 1, lines 42+.

8. Lehmann et al are silent regarding conducting the process in the vapor phase; however, the secondary references disclose the phosgenation of diamines in the vapor phase with an attendant increase in yield, as compared to conventional phosgenation processes. Therefore, one of ordinary skill in the art seeking a method of producing either isocyanates and improving yield would have been motivated to utilize the vapor phase phosgenation methods of secondary references with the ether amines of Lehmann et al., so as to obtain ether isocyanates displaying greater purity and more economical processes.

Any inquiry concerning this communication should be directed to R. Sergent at telephone number (703) 308-2982.

RABON SERGENT
PRIMARY EXAMINER

Sergent:mv

March 22, 2002